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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/560,121	04/28/2000	Todd A. Merritt	303.626US1	3391

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EXAMINER

WELLS, KENNETH B

ART UNIT	PAPER NUMBER
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2816

DATE MAILED: 02/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/560,121

Applicant(s)
MERRITT

Examiner
Kenneth B. Wells

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jan 14, 2002
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Apr 28, 2000 is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 6 20) ☐ Other:

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1. The disclosure is objected to because of the following informalities: on page 3, lines 2, 4, 9, 12 and 15, all occurrences of "a" should be deleted. Note that this grammatical error occurs in several other places in the specification and claims. On page 5, line 17, "complementary" is misspelled. On page 6, line 23, "includes" should be changed to --include--.

Applicant should also note that there are numerous grammatical errors throughout the claims. For example, in claim 8, line 1, "comprising" should be changed to --comprises-- and in claim 10, line 1, --are-- should be inserted after "capacitors" and "providing" on line 3 should be changed to --provide--.

Also note that "further comprises" on line 1 of claim 4 should be changed to --comprise-- (the word "further" is not proper because no details of the phase generators has been previously recited).

Also, "similar" in claim 8 is vague and indefinite, see MPEP 2173.05(d). Appropriate correction is required.

2. The drawings are objected to because the black boxes in Figs. 10-13 need text labels. Correction is required.

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3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

Claims 1-5, 7, 8, 10, 12, 14, 15, 17, 19-26 and 35-42 are rejected under 35 U.S.C. 102(b) as being anticipated by Merritt, USP 5,828,095.

Note Fig. 9, where the recited "plural phase generators" are formed by the elements within circuit 1020; the "first and second preboot capacitors" are elements 1380 and 1410; the "first and second main pump capacitors" are elements 1480 and 1500; the "first and second pre-boot precharge capacitors" are elements 1640 and 1660; and the "first and second gating devices" are any two of the switching FETs in the figure. The primary and secondary phase generators of claim 5 are formed by any combination of circuits 1100, 1020 and the remaining gates to the left of capacitors 1640 and 1660 in the figure. The "sharing transistors" of claim 41 are FETs 1920 and 1940.

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4. Claims 3, 5, 19 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Cha.

Note Fig. 2, where the recited "plural phase generators" are the elements 16 and INV9 ; the "first and second preboot capacitors" are elements C1 and C3; the "first and second main pump capacitors" are elements C2 and C4; and the "first and second gating devices" are any two of the switching FETs in the figure.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6, 9, 11, 13, 16, 18 and 27-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Merritt.

The claims reciting the specific power supply level (e.g., 1 to 2.5 volts) or delay time (e.g., 10 to 30 nanoseconds) are deemed to be obvious design expedients to those having ordinary skill in the art, since the skilled artisan will easily recognize that a supply voltage can be set to any desired value, as can the

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amount of delay of a delay element, without any unexpected results.

Claims 27-34 are also obvious modifications to Merritt because those skilled in the art will also recognize that the charge pump of Merritt is for use in any IC environment where a pumped voltage above the available supply voltage is required or desired.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth B. Wells whose telephone number is (703) 308-4809. The examiner can normally be reached on Monday through Friday from 7:30am to 4:00pm.

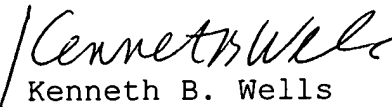
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy P. Callahan, can be reached on (703) 308-4876. The fax phone number for this Group is (703) 308-7722.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.


Kenneth B. Wells
Primary Examiner
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February 8, 2002